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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/085,809	02/28/2002	James Austin Kendrick	98B014E	3259	
23455 7	590 04/14/2006		EXAMINER		
EXXONMOBIL CHEMICAL COMPANY			NECKEL, ALEXA DOROSHENK		
5200 BAYWA P.O. BOX 2149			ART UNIT	PAPER NUMBER	
BAYTOWN, TX 77522-2149			1764		
			DATE MAILED: 04/14/2006	DATE MAILED: 04/14/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

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		Application No.	Applicant(s)			
Office Action Summary		10/085,809	KENDRICK ET AL.			
		Examiner	Art Unit			
		Alexa D. Neckel	1764			
Period fo	The MAILING DATE of this communication apported to the communication apport.	ears on the cover sheet with the c	orrespondence address			
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).						
Status			·			
1) 又	Responsive to communication(s) filed on <u>02 Fe</u>	bruary 2006.				
		action is non-final.				
· · · · · ·	Since this application is in condition for allowan		secution as to the merits is			
,—	closed in accordance with the practice under Ex					
<b>.</b>		The state of the s				
Dispositi	on of Claims					
<ul> <li>4)  Claim(s) 1-28 is/are pending in the application.</li> <li>4a) Of the above claim(s) 1-6 and 26-28 is/are withdrawn from consideration.</li> <li>5)  Claim(s) is/are allowed.</li> <li>6)  Claim(s) 7-25 is/are rejected.</li> <li>7)  Claim(s) is/are objected to.</li> <li>8)  Claim(s) are subject to restriction and/or election requirement.</li> </ul>						
Application Papers						
9)☐ The specification is objected to by the Examiner.						
10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.						
	Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).					
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority u	nder 35 U.S.C. § 119					
12) 🗀 🗸	Acknowledgment is made of a claim for foreign o	priority under 35 LLS C & 110/o)	(d) or (f)			
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No.</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>						
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Attachment	` '	·				
1)						
3) 🔲 Inform	nation Disclosure Statement(s) (PTO-1449 or PTO/SB/08) No(s)/Mail Date	5) Notice of Informal Par 6) Other:				
<del></del>			<u> </u>			

Art Unit: 1764

#### **DETAILED ACTION**

## Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 2, 2006 has been entered.

#### Election/Restrictions

2. This application contains claims 1-6 and 26-28 drawn to an invention nonelected with traverse in the paper filed July 14, 2005. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

## Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 7-25 continue to be rejected under 35 U.S.C. 103(a) as being unpatentable over McElvain et al. (WO 01/05842 A1) and Palmroos (WO 96/18662).

McElvain et al. discloses an apparatus which comprises a loop reactor (10) with at least 8 vertical legs (see figure 1), at least two non-vertical runs which are connected

Application/Control Number: 10/085,809

Art Unit: 1764

with two vertical legs(see figure 1), at least two feed inlets (30, 32) and at least two continuous discharge conduits (figure 8b). McElvain et al. does not teach reconfiguring their apparatus into two connected closed loop reactors.

Palmroos discloses that connected multiple connected loop reactors (10, 20), each with its own inlet (18, 22) and outlet (21, 27), allow for optimization of reaction stages (p. 5, lines 4-31).

It is well within the skill of one of ordinary skill in the art to be able to connect and disconnect the various elements of the known loop reactor of McElvain et al. to form multiple connected loop reactors of Palmroos, and one would be motivated to do so in order to gain further control of various reaction stages and optimization of reaction stages. Obviousness may sometimes be based on the common knowledge of persons skilled in the art without relying on a specific suggestion in a particular reference. In re

Bozek, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969).

## Response to Arguments

5. Applicant's arguments filed February 2, 2006 have been fully considered but they are not persuasive.

Applicant again argues that if one were to convert the apparatus of McElvain into the device of Palmroos then redundant conduits and loops would result, therefore not including each and every limitation of the claims.

As stated in the Final Rejection and the Advisory Action, it is well within the skill of one of ordinary skill in the art to be able to connect and disconnect the various elements of a known loop reactor (such as the reactor of McElvain) to form another

Application/Control Number: 10/085,809

Art Unit: 1764

known loop reactor (such as the reactor of Palmroos). The fact that by converting the McElvain reactor to the Palmroos reactor may result in extra/redundant pieces remaining from the original reactor does not preclude one of ordinary skill in the art from converting the reactor in such a manner. It is also noted that the instant claims use the transitional term "comprising", which is inclusive or open-ended and does not exclude additional, unrecited elements or method steps.

Applicant again argues that the references themselves do not disclose the steps of disconnecting and reconnecting conversion runs.

The examiner continues to maintain her position that it is well within the skill of one of ordinary skill in the art to be able to connect and disconnect the various elements of a known loop reactor (such as the reactor of McElvain) to form another known loop reactor (such as the reactor of Palmroos).

Applicant again argues that the examiner has not provided sufficient motivation to combine the references.

As previously discussed, one in possession of the reactor of McElvain would be motivated to convert their reactor into the reactor of Palmroos in order have a reactor which would allow the possessor to gain further control of various reaction stages and optimize the reaction stages, which are advantages taught by Palmroos.

Additionally, obviousness may sometimes be based on the common knowledge of persons skilled in the art without relying on a specific suggestion in a particular reference. In re Bozek, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969).

Art Unit: 1764

One skilled in the art to which the invention pertains could take the description of the invention in the printed publications of McElvain and Palmroos and combine it with his own knowledge of the particular art (the ability to disconnect and disconnect the structural elements of a reactor) and from this combination be put in possession of the invention on which a patent is sought. A reference contains an enabling disclosure if the public was in possession of the claimed invention before the date of invention. Such possession is effected if one of ordinary skill in the art could have combined the reference's description of the invention with his own knowledge to make the claimed invention. In re Donohue, 766 F.2d 351, 226 USPQ 619 (Fed. Cir. 1985).

Applicant also again appears to be questioning the ability of one skilled in the art to know how to disconnect and reconnect the various elements of a known loop reactor. If this is the case, it is noted that applicant's specification does not provide the type of detail that would instruct one on how to specifically go about disconnecting and reconnecting various elements. Such argument amounts to arguing that the references require a type of detail not provided for in applicant's own specification. In re Epstein 31 USPQ2d at 1823 ("Rather, the Board's observation that appellant did not provide the type of detail in his specification that he now argues is necessary in prior art references supports the Board's finding that one skilled in the art would have known how to implement the features of the references and would have concluded that the reference disclosures would have been enabling.").

Art Unit: 1764

### Conclusion

6. This is a continuation of applicant's earlier Application No. 10/085,809. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexa D. Neckel whose telephone number is 571-272-1446. The examiner can normally be reached on Monday - Thursday from 9:00 AM - 7:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/085,809

Art Unit: 1764

Page 7

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alexa D. Neckel Primary Examiner Art Unit 1764

April 12, 2006

ALEXA DOROSHENK NECKEL PRIMARY EXAMINER